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J. ANDERSON

LATCH FOR GATES

Filed Feb. 18, 1922

Fig. 1.

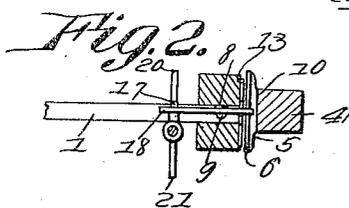
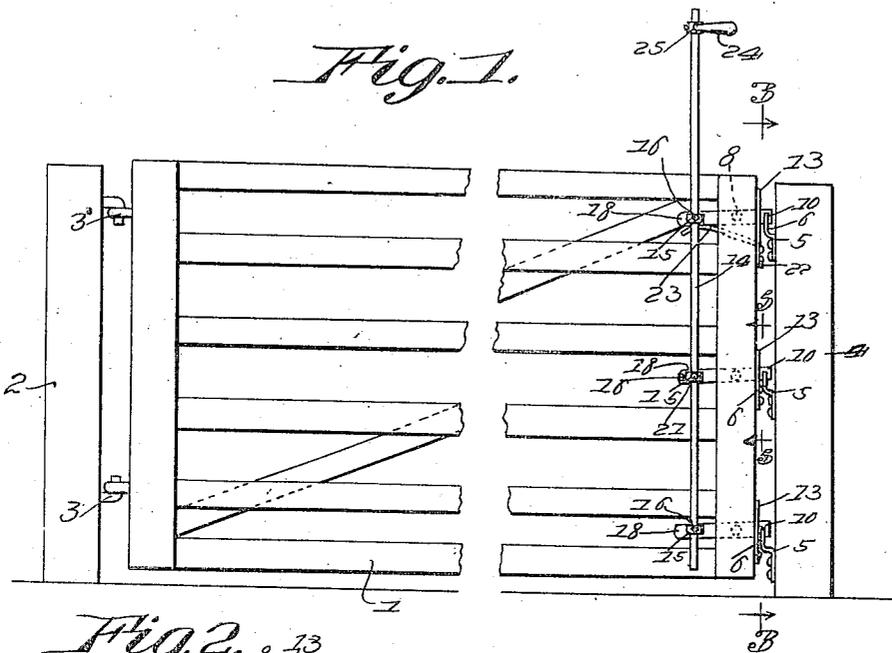


Fig. 3.

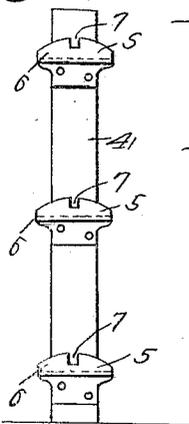


Fig. 5.

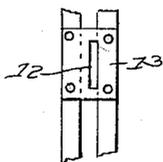
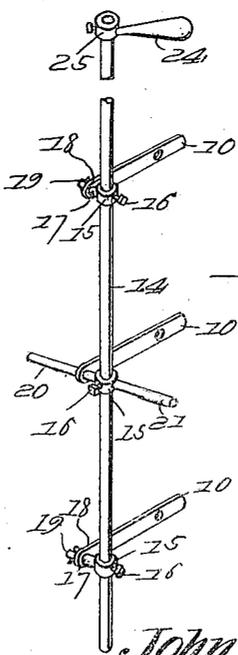


Fig. 4.



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UNITED STATES PATENT OFFICE.

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LATCH FOR GATES.

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To all whom it may concern:

Be it known that I, JOHN ANDERSON, a citizen of the United States, residing at Massbach, in the county of Jo Daviess and State of Illinois, have invented certain new and useful Improvements in Latches for Gates, of which the following is a specification, reference being had to the accompanying drawings.

It is the purpose of the present invention to provide an improved, simple and practical latch mechanism for use in connection with various gates, such as those used on a garden fence, or at a roadway, or used in farm yards, and especially all gates capable of swinging in either direction.

Another purpose is the provision of a latch so applied to a gate swinging in either direction, including means, whereby the latch mechanism may be actuated by an operator on horseback, without the rider dismounting.

A still further purpose is to provide a latch mechanism, which comprises a plurality of latch members interconnected, so that by the actuation of a single member on either side of the gate, or at a point above the gate, all the latch members may be actuated simultaneously. The latch mechanism herein shown and described simply necessitates the pressure of the hand of the operator upon the single connecting member, on either side of the gate or at the top, to actuate the mechanism, and after passing through the gate opening, the gate may be swung to a closed position, in which case the latch members of the mechanism will automatically lock.

Still another purpose is the provision of means for mounting the latch members so that they can freely oscillate to latched or unlatched positions. The journals for the latch members are clamped securely in position by means of screws or similar devices, so as to remain stationary with respect to the latch members.

A further purpose is the provision of a latch mechanism wherein a plurality of latch members are employed including a connecting actuating element between the parts, and adjustable relatively thereto, whereby the latch mechanism may be applied to gates of different heights, without any change in the construction, but simply involving the adjustment of the connecting element.

While the design and construction at pres-

ent illustrated and set forth are deemed preferable, it is obvious that as a result of a reduction of the invention to a more practical form for commercial purposes, the invention may be susceptible of changes, and the right to these changes is claimed, provided they are comprehended within the scope of what is claimed.

The invention comprises further features and combination of parts, as will be hereinafter set forth, shown in the drawings and claimed.

In the drawings:—

Figure 1 is a view in side elevation of a gate, showing the improved latch mechanism applied;

Figure 2 is a plan view of the same, also showing the latch mechanism;

Figure 3 is a vertical sectional view on line 3—3 of Figure 1;

Figure 4 is an enlarged detail perspective view of the latch mechanism removed; and

Figure 5 is a detail view of a portion of the end edge of the gate showing one of the plates 13.

Referring to the drawings, 1 designates a gate, which may be used either as a garden gate, road gate or a gate belonging to a stock yard, and 2 denotes a post on which the gate is hingedly swung as at 3. Carried by a post 4 are keeper members 5, each of which comprises a plate provided with an offset portion 6 having a notch 7. The upper edge of the offset portion is inclined from either end of the offset portion upwardly and inwardly. The center of the offset portion has the notch 7, and by means of the inclined edges, it is obvious that the latch member may be cammed in engagement with the notch.

Carried by the free end of the gate is a plurality of journals 8, which are fastened to the perpendicular bar of the gate, by means of screws, bolts or the like 9. Latch members 10 are pivotally mounted upon the journals, and since the heads of the screws are tightened securely against the ends of the journals, the journals are held stationary, while the latch members are free to oscillate. The ends 11 of the latch members are guided in slots 12 of the plates 13, which are secured to the end edge of the gate.

A perpendicular actuating rod 14 is provided and has adjustable thereon a plurality of collars 15. These collars 15 are held ad-

justable on the rod by means of the set bolts 16. Projecting from the collars 15 are studs 17, which are reduced and shouldered and are journaled in the ends 18 of the latch members, there being cotter pins 19 passing through the reduced ends of the studs to hold the studs connected to the latch members. The center stud has its reduced portion longer than the reduced portions of the other studs, so as to extend on one side of the gate to constitute a handle 20. The collar which carries the center stud has an extra stud projecting in the opposite direction and axially with relation to the first stud, thereby constituting a second handle 21. By urging pressure upon either one of these handles, the connecting rod may be moved downwardly, thereby causing the latch members to tilt, thus raising the free ends of the latch members out of engagement with the notches 7 of the keepers, so as to enable the gate to swing in either direction. Obviously the gate may be actuated from either side of the fence, by grasping either one of the handles.

Also it will be noted that by adjusting the collars relatively to each other and on the rod, the rod, together with the latch members may be positioned, so that the latch mechanism can be applied to gates of different heights. Fastened to the end edge of the gate by means of screws 22 is a leaf spring 23, which engages under one end of one of the latch members and constitutes means to hold the free ends of the latch members in engagement with the notches, for the purpose of holding the gate latched.

The perpendicular actuating rod 14 is of substantial length, and is designed to extend above the upper edge of the gate, and mounted upon this rod is a detachable handle 24. This handle 24 has devices 25 for detachably connecting said handle to the

rod. Obviously this handle 24 may be adjusted to any position along the rod, and furthermore it is preferably used at the upper end of the rod, so as to be readily grasped by an operator on horseback, in order to open the gate without the rider dismounting. The several latches may be locked by adjusting the two lower collars 15 of the two lower latches downward on the actuating rod 14, while the upper latch remains in engagement with its keeper, then the thumb screws 16 of the lower collars 15 may be tightened. The spring 23 will tend to hold the upper latch in engagement with the keeper while the keeper engaging ends of the two lower latches will contact with the upper ends of the slots 12 of the two lower plates 13, which are secured to the swinging closure or gate, which will prevent any downward movement of the actuating rod, in order to unlock the upper latch.

The invention having been set forth, what is claimed is:—

The combination with a support provided with a plurality of keepers, of a swinging closure to operate in either direction past said support, a plurality of latch members pivotally supported upon the closure and adapted to simultaneously and automatically and operatively engage with said keepers, when the closure swings to a closed position from either side, tensioning means for said latch members, a single actuator adjustably and operatively connecting said latch members, and a handle carried by said actuator, and an additional handle adjustably carried by and connected to the upper end of said actuator, whereby a rider may operate the actuator, without dismounting.

In testimony whereof I hereunto affix my signature.

JOHN ANDERSON.